an evacuating mechanism that evacuates the processing gas from said processing chamber, and

a gas circulating mechanism that returns at least a portion of exhaust gas evacuated from said processing chamber to said gas supply mechanism,

wherein said gas supply mechanism includes,

a primary gas supply system that supplies primary gas supplied from a processing gas source into said processing chamber via said primary gas supply holes, and

a circulating gas supply system that supplies at least a portion of the exhaust gas into said processing chamber via said circulating gas supply holes with said primary gas supply system and said circulating gas supply system constituted as systems independent of each other, and

wherein the ratio of the number of said primary gas supply holes and the number of said circulating gas supply holes equals the target ratio of a primary gas flow rate and a circulating gas flow rate, the flow rate of the circulating gas being higher than the flow rate of the primary gas, so that the number of said circulating gas supply holes is greater than the number of said primary gas supply holes, and

wherein the hole radius and the hole density of said primary gas supply holes are constant over an entire surface and the hole radius and the hole density of said circulating gas supply holes are constant over the entire surface.

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1300 I Street, NW
Washington, DC 20005
202.408.4000
Fax 202.408.4400
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14. (Amended) A processing apparatus comprising:

a gas supply mechanism that supplies a processing gas into a processing chamber via a plurality of gas supply holes including a plurality of primary gas supply holes and a plurality of circulating gas supply holes;

an evacuating mechanism that evacuates the processing gas from said processing chamber; and

a gas circulating mechanism that returns at least a portion of exhaust gas evacuated from said processing chamber to said gas supply mechanism,

wherein said gas supply mechanism includes,

a primary gas supply system that supplies primary gas supplied from a processing gas source into said processing chamber via said primary gas supply holes, and

a circulating gas supply system that supplies at least a portion of the exhaust gas into said processing chamber via said circulating gas supply holes with said primary gas supply system and said circulating gas supply system constituted as systems independent of each other, and

wherein the ratio of the number of said primary gas supply holes and the number of said circulating gas supply holes equals the target ratio of a primary gas flow rate and a circulating gas flow rate, the flow rate for the circulating gas being higher than the flow rate for the primary gas, so that the number of said circulating gas supply holes is greater than the number of said primary gas supply holes,

and the circulating gas holes are spaced differently than the primary gas supply holes, and surround the primary gas holes.

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202.408.4000
Fax 202.408.4400
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15. (Twice Amended) A processing apparatus comprising:

a gas supply mechanism that supplies a processing gas into a processing chamber though primary gas supply holes;

an evacuating mechanism that evacuates the processing gas from said processing chamber, and

a gas circulating mechanism that returns at least a portion of exhaust gas evacuated from said processing chamber to said processing chamber through circulating gas supply holes,

wherein said gas supply mechanism includes,

a primary gas supply system that supplies primary gas supplied from a processing gas source into said processing chamber, and

a circulating gas supply system that supplies at least a portion of the exhaust gas into said processing chamber with said primary gas supply system and said circulating gas supply system constituted as systems independent of each other, and

wherein the ratio of the total area of said primary gas supply holes and the total area of said circulating gas supply holes equals the target ratio of a primary gas flow rate and a circulating gas flow rate, the flow rate for the circulating gas being higher than the flow rate for the primary gas, so that the total area of said circulating gas supply holes is greater than the total area of said primary gas supply holes.

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Washington, DC 20005
202.408.4000
Fax 202.408.4400
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24. (New) A method for processing a wafer, comprising:

supplying a processing gas into a processing chamber via a gas supply mechanism including a plurality of primary gas supply holes and a plurality of circulating gas supply holes;

evacuating the processing gas from said processing chamber with an evacuating mechanism;

returning at least a portion of exhaust gas evacuated from said processing chamber to said gas supply mechanism through a gas circulating mechanism;

wherein supplying a processing gas via the gas supply mechanism includes,

supplying primary gas supplied from a processing gas source into said processing chamber via a primary gas supply system including said primary gas supply holes, and

supplying at least a portion of the exhaust gas into said processing chamber via a circulating gas supply system including said circulating gas supply holes, wherein said primary gas supply system and said circulating gas supply system are constituted as systems independent of each other;

supplying the primary and circulating gases at flow rates, wherein the flow rates include a higher flow rate for the circulating gas than the primary gas, and wherein the ratio of the number of said primary gas supply holes and the number of said circulating gas supply holes equals the target ratio of a primary gas flow rate and a circulating gas flow rate; and

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Washington, DC 20005
202.408.4000
Fax 202.408.4400
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wherein the hole radius and the hole density of said primary gas supply holes are constant over an entire surface and the hole radius and the hole density of said circulating gas supply holes are constant over an entire surface.

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